Abstract

Restricting the assignment of VLANs so that a unique VLAN or set of VLANs must be assigned to each link for a particular network circuit (NC) or group of NCs. NCs are prevented from

5 being assignd a particular VLAN if the addition of the VLAN assignment will create a mix-match topology, which may either create a loop or prevent a loop from being able to be properly blocked without inadvertently blocking a link of another NC. Restriction of VLAN assignment allow a single conventional

10 spanning tree to be run to ensure that there are no layer 2 forwarding loops exist while at the same time not inadvertently blocking the path of another NC.